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AN EVALUATION OF THE BRADFORD BEATING DIABETES INTENSIVE LIFESTYLE CHANGE PROGRAMME

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Acronyms and Definitions

| | |
|-----------------|---|
| BBD | Bradford Beating Diabetes |
| BME | Black and Minority Ethnic |
| BMI | Body Mass Index |
| BP | Blood Pressure |
| CCG | Clinical Commissioning Group |
| HCA | Healthcare Assistant |
| HPA | Healthcare Professional |
| HT | Health trainer |
| ILCP | Intensive Lifestyle Change Programme |
| IQR | Inter Quartile Range |
| SD | Standard Deviation |
| SPSS | Statistical Package for Social Sciences |
| | |
| 'Beneficiaries' | People identified at high risk of developing diabetes – and attending the ILCP |
| 'BBD Champions' | People who are trained to facilitate the ILCP group sessions. They could be members of the public, health care assistants or health trainers. They are paid on a sessional basis. |

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Our thanks go to all the beneficiaries and champions who completed questionnaires, took part in focus groups and allowed their clinical data to be shared – without this, the evaluation would not have been possible.

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Key Findings

Following completion of the Intensive Lifestyle Change Programme:

- Knowledge about diabetes improved
- Levels of moderate physical activity and consumption of fruit and vegetables increased
- Self-rated health improved
- Blood sugar levels were down overall
- Participants were very positive about the programme and how it is run

Report Summary

The rising rates of Type 2 diabetes in the UK – and its associated co-morbidities - are a source of great public health concern. It is estimated that by 2025 five million people in Britain could have the condition¹, up from nearly 3.5 million in 2015² (Diabetes UK, 2015³). At a more local level, Public Health England stated in 2015 that more than 50,000 people in Bradford were at a high risk of developing Type 2 Diabetes.⁴

Bradford Beating Diabetes was launched on World Diabetes Day in 2013, with the aim of tackling the rise of diabetes and its associated health issues. This report describes the findings of an evaluation of the Intensive Lifestyle Change Programme (ILCP). The ILCP is a preventative programme, whereby people with a high risk of developing diabetes in the near future, are identified through general practice, and invited to take part in the programme. Participating involves attending nine group sessions (run in first languages by community health champions) over the course of a year. Beneficiaries find out about diabetes, discuss practical ways of improving their health and set their own goals. The first groups started in 2014.

The evaluation was carried out by Health Together based in the Centre for Health Promotion Research at Leeds Beckett University. An initial evaluation was carried out after one year and then repeated after two years when more people had participated in and completed the year-long ILCP. The evaluation included;

- clinical tests (pre and post) to find out whether blood sugars, weight and BMI had improved.

¹ AHPO diabetes prevalence model – cited by Diabetes UK, 2015

² QOF data 2014/15

³ Facts and Stats. Available at diabetes.org.uk/documents

⁴ Public Health England 2015

- a questionnaire (pre and post) to measure changes in health behaviours, self-reported health and wellbeing.
- focus groups to ascertain the views of participants and champions about the programme and its impact.

Overall, the second evaluation confirms the encouraging results gathered in the initial evaluation. The quantitative and qualitative data triangulate well with participants giving very positive feedback on the programme and showing clear signs of improving their health related behaviour.

The quantitative data reveals that self-rated levels of knowledge about diabetes had risen by a statistically significant amount between the start and finish of the programme. Plus the scores for physical activity (moderate exercise), diet (fruit and vegetable consumption) and self-rated health had all shown statistically significant improvements, indicating that people were making changes in their health related behaviour as a result of their participation in the programme, and BMI and waist circumference showed small but not statistically significant reductions. Blood sugar levels overall were down by a statistically significant amount, indicating that the programme was beginning to have a positive effect on diabetes prevention.

The qualitative data reveals that the ILCP was very well received by beneficiaries, with its content and approach seen as appropriate and useful. Key positive aspects of the programme included:

- The referral process – identification by GP practices as being at risk was a ‘wake up call’ and the ILCP enabled people to translate their concerns into behaviour change.
- The group structure - being in a group made beneficiaries feel comfortable, able to share experiences and learn from each other.
- The diversity of languages spoken aided comprehension and interaction.
- The key messages of making small changes and incorporating them into their current lifestyle were well received and understood by beneficiaries.
- The information and advice given was culturally appropriate for participants.

The report concludes with recommendations on how to further improve the programme and spread the learning gained from its successful development.

1 Introduction

1.1 The Intensive Lifestyle Change Programme (ILCP)

The Bradford Beating Diabetes (BBD) initiative aims to tackle the health issues associated with rising levels of diabetes. It sets out to identify people who have undiagnosed diabetes plus those who are at a high risk of developing it in the near future.

People who are registered with a GP practice (initially in Bradford City, now extended to Bradford District CCG area) who have been known to have a high blood sugar reading in the previous 12 months or fit specific criteria in terms of age and ethnicity, are invited by their practice to complete a 'diabetes risk score' (a blood sugar test). Those identified as having type 2 diabetes enter the diabetes management pathway. Those who are identified as at a high risk of developing diabetes, but don't yet have it, are invited to attend an Intensive Lifestyle Change Programme (ILCP). This report is an evaluation of the latter.

The ILCP is managed by the Bradford Beating Diabetes Team (BBD Team) within the Bradford District Care NHS Foundation Trust. The programme uses a group based approach aiming to help attendees (or beneficiaries) change their lifestyle and thus reduce their risk of developing diabetes. Key messages are to 'Be Aware, Be Active, Be Healthy, Be In Control'.

Those identified as being at a high risk of developing diabetes are offered a place on the ILCP. The BBD Team then invite them to attend the yearlong programme, consisting of nine group sessions. The first five sessions are held weekly, with subsequent ones occurring less frequently. The BBD Team aims to place beneficiaries in a group that suits their needs in terms of language, location and time of day.

Groups are held in community centres and GP practices. BBD Champions, who are members of the public, health care assistants (HCAs) and health trainers (HTs) trained specifically for this role, facilitate the groups, aiming to make them engaging, friendly and supportive. They are paid on a sessional basis. Topics covered include healthy eating, physical activity and smoking cessation with beneficiaries encouraged to set behaviour change goals.

1.2 Uptake of the Intensive Lifestyle Change Programme (ILCP)

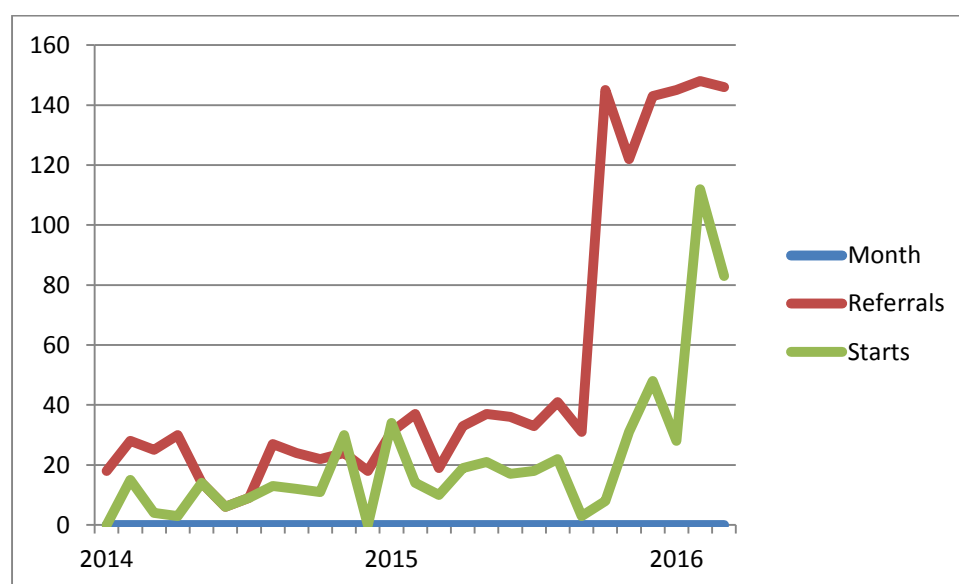
The first ILCP sessions started in Bradford City CCG in February 2014, involving 27 GP Practices. In October 2015 the programme was extended to the Bradford District CCG and

involved a further 41 GP Practices. Additional BBD Champions were recruited and trained to enable the programme extension to take place and there are now 30 BBD Champions facilitating the ILCP. In the two years that the ILCP has been operational, 1392 people have been referred by their GP practice and 587 people have started the ILCP (an uptake of 42.2%)⁵.

Table 1: ILCP referrals, starters and group size

| | 2014 (First group in Feb) | 2015 (All year) | 2016 (Up to 31st March i.e. 3 months) |
|--|--------------------------------------|----------------------------|---|
| Number of people referred to ILCP by GP practice | 245 | 708 | 439 |
| Number of people starting the ILCP | 119 | 245 | 223 |
| Average group size | 4.4 | 6 | 8.3 |
| Group size range | 2 to 10 | 2 to 11 | 2 to 15 |

Figure 1: ILCP Referrals and Starts by Month (January 2014 – 31st March 2016)



Groups now run from 17 different venues across the district – some are on their 16th intake of participants, whilst the newest started in March 2016. Group size has gradually increased from an average of 4.2 participants per group in 2014 to nearly 7 in 2016.

⁵ Figures for up to 31st March 2016

1.3 The Evaluation

Health Together, the practice arm of the Centre for Health Promotion Research at Leeds Beckett University, was commissioned to evaluate the ILCP. The evaluation looked at both outcomes achieved and at the process of the ILCP (i.e. how it ran).

Outcome evaluation

To examine whether beneficiaries of the ILCP programme (i.e. those taking part):

- Changed their health behaviours - including diet, activity, smoking.
- Experienced an improvement in their self-reported health and wellbeing.
- Experienced an improvement in their clinical measures - including Body Mass Index (BMI), waist circumference and blood sugar levels.

Process evaluation

- To explore the acceptability of the ILCP, as perceived by beneficiaries and champions

An interim evaluation report was completed in March 2015. At that point, few beneficiaries had completed the full year programme, so the evaluation included all those who had completed at least 6 months of the ILCP. It was recognised that this may impact on the final results as there had been less time for changes to occur. This second evaluation combines the results from the first evaluation with further data from 2016.

2 Methodology

2.1 Overall approach including ethics

Multiple methods were used to answer the evaluation objectives and triangulate findings in order to increase validity (see **Appendix 1**). The quantitative methods were chosen to answer the outcome evaluation objectives, whilst the qualitative methods largely address the process evaluation - though they do also include some information on behaviour change.

In both phases of the evaluation an event for beneficiaries was organised by the BBD Team. Those attending were asked to complete a 'post' questionnaire, have their clinical data taken and participate in a focus group. Lunch was provided and beneficiaries received recognition for participating / completing the ILCP.

At the event in January 2015, 19 beneficiaries attended and they each received a £20 book token as a thank you. An additional event was also organised in one GP practice in early March. At the event in January 2016, 17 beneficiaries attended and they each received a Club Active Card offering free entry to various Bradford Council leisure and sports facilities for a year.

Ethics

The ILCP evaluation was approved by the Leeds Beckett University Local Research Ethics Co-ordinator. In keeping with ethical practice it was ensured that:

- Participants received clear information about the evaluation – they were informed that their participation was voluntary and refusal to take part would not affect their role in the ILCP in any way (see **Appendix 2**).
- Written consent was gained from each participant. They were informed that they could withdraw up to the point of analysis without giving any reason (see **Appendix 3**).
- Anonymity was maintained at all times with no names of individuals being used.
- Data was stored in a secure way with only researchers at Leeds Beckett University having access to it.

Where participants were not able to read English BBD Champions went through this information with beneficiaries one to one.

2.2 Quantitative data

Questionnaire (Appendix 4)

A questionnaire was designed, in discussion with the BBD Team, which aimed to measure changes in health behaviours, self-reported health and wellbeing. The questionnaire was designed to collect as much relevant information in as few questions as possible, bearing in mind that the questionnaires might need to be translated. Questions were asked about participants' reasons for attending the ILCP, how much they felt they already knew about diabetes (visual analogue scale 1-10), how much exercise (moderate and vigorous) they undertook weekly, how much fruit, vegetables and high fat foods they consumed daily (all Likert scales from "none" to "5 or more"), whether they smoked (yes/ no), and how many units of alcohol they consumed in a week (free response). The WHO-5 Wellbeing Index was used to assess wellbeing (www.who-5.org) – this contains five positively worded items related to positive mood (good spirits, relaxation), vitality (being active and waking up fresh and rested), and general interests (being interested in things), each rated on a 6-point Likert scale from 0 (not present/ at no time) to 5 (constantly present/ all of the time). A single question was used to rate participants' health status over the last two weeks as excellent, good, fair or poor, and another single item question was used to rate participants' self-efficacy in terms of feeling confident that they could make positive changes to their health (visual analogue scale 1-10). Questions were asked about participant demographics in terms of: age, gender, ethnicity and postcode.

Questionnaires were given out at first attendance at the ILCP (baseline) and at the final follow-up session.

Analysis

Pre- and post- data from questionnaires for each participant were collated and entered into statistical software (SPSS version 21) for analysis. Descriptive statistics (frequencies and distributions) were presented for participant demographics and all data across the whole group and at baseline and follow-up.

For the WHO-5 Wellbeing Index, scores for the five items were summated for each participant at each time point, with a raw score ranging from 0 to 25. The scores were then transformed to 0-100 by multiplying by 4, with higher scores meaning better wellbeing. Where participants had both baseline and follow-up data available for the same questions, paired t-test (or non-parametric equivalent) was used to compare baseline and follow-up scores.

GP practice staff collected a number of measures / indicators from beneficiaries when completing their initial (pre) diabetes risk score. The ILCP pathway involves these measures being re-taken one year on. For the initial evaluation, this was done earlier, as mentioned in 2.1, when beneficiaries had completed at least 6 months of the programme. The indicators / measures taken were; weight, height, BMI, waist circumference, blood pressure, smoking status, family history of diabetes and blood sugar (HBA1c). Comparisons were made for individuals 'pre' and 'post' the ILCP.

2.3 Qualitative data

In both phases of the evaluation, focus groups were conducted to assess the acceptability of the ILCP and identify any areas of good practice or issues. Participants were asked about their referral onto the ILCP, their perceptions of it, any changes in their health and wellbeing and recommended improvements. See **Appendix 5** for the full schedule.

As many participants did not speak English, BBD Champions assisted the university researchers by interpreting. This assistance was vital, but as they were not trained interpreters and were not wholly impartial this could potentially affect the validity of the findings. In the initial evaluation some focus groups contained people speaking a diversity of languages (e.g. English, Punjabi and Urdu) making the interpretation time-consuming and impacting on the quantity and quality of data that could be collected. In the second evaluation, groups were organised by language thus simplifying the interpretation process e.g. all Punjabi speakers would be in one group so only English and one other language was spoken. This engendered better conversations and enabled better quality data to be collected.

As part of the initial evaluation, a focus group was conducted with BBD Champions. Participants were asked about their motivation to become involved, training and support plus perceptions of the programme and the referral system. Champions were also asked for key learnings / recommendations. This group was conducted in English. See **Appendix 6** for the full schedule.

2.4 Challenges

Challenges that arose during the evaluation included; lower numbers of participants than anticipated (thus affecting quantitative data numbers), initial difficulties attaining clinical data from GP practices and language issues.

The lower numbers of participants mainly affected data collected for the initial evaluation – with only 61 starters eligible for inclusion in the evaluation (those who had started between February and July 2014). Conducting the phase 2 evaluation meant that more starters could be included thus improving the validity of the results.

Many beneficiaries did not speak English (Punjabi, Urdu and Bangla were common first languages). This meant completing the questionnaires, reading the information sheets and completing consent forms (all written in English), had to be done with a BBD Champion –a time-consuming process and one that would be difficult to scale up. The use of interpreters in the focus groups limited how much the facilitators could probe and meant less in-depth data was collected.

The involvement of the Champions – whom participants knew and who spoke the same language as – was critical to their involvement. In addition, the BBD Team were very committed to contacting beneficiaries and liaising with GP practices.

3 Quantitative findings

3.1 Questionnaire data

Questionnaires were returned for 57 participants in total (30 in first phase and 27 in second phase): 51 were completed at the start of programme (baseline) and 51 at follow-up. This section combines the findings from both phases.

Participants had attended a range of venues:

Table 2: venue attended by participants

| Venue | Number of participants |
|---------------------|------------------------|
| Avicenna | 11 |
| Clarendon | 7 |
| Kala Sangam | 7 |
| Little Horton Lane | 11 |
| BCB | 3 |
| Karmand Centre | 6 |
| Midland Road | 1 |
| Womenzone | 1 |
| Khidmat | 1 |
| Westbourne Green | 4 |
| Missing (not known) | 5 |

Dates

In the initial evaluation, start dates were given for 8 people and ranged from 1st January to 9th April 2014. Dates for filling in the baseline questionnaire were given for 25 people and ranged from 15th January to 29th November 2014. Dates for filling in the follow-up questionnaire were given for 29 people and ranged between 15th January and 6th March 2015.

In second phase of the evaluation, only one start date was given (19th November 2014), but dates for filling in the baseline questionnaire (n=26) ranged from 22nd August 2014 to 29th November 2014. Dates for filling in the follow-up questionnaire (n=22) ranged from 4th August 2015 to 11th January 2016.

Demographics

Gender: Forty-six participants (80.7%) reported their gender: of these thirty-one (67.4%, around two thirds) were female and fifteen (32.6%, around one third) were male.

Age: Forty-six participants (80.7%) reported their age group: of these thirty-five (76.1%, around three quarters) were aged 45-64 years, eight (17.4%) were aged 25-44 years and another three (6.5%) were aged 65 or more years.

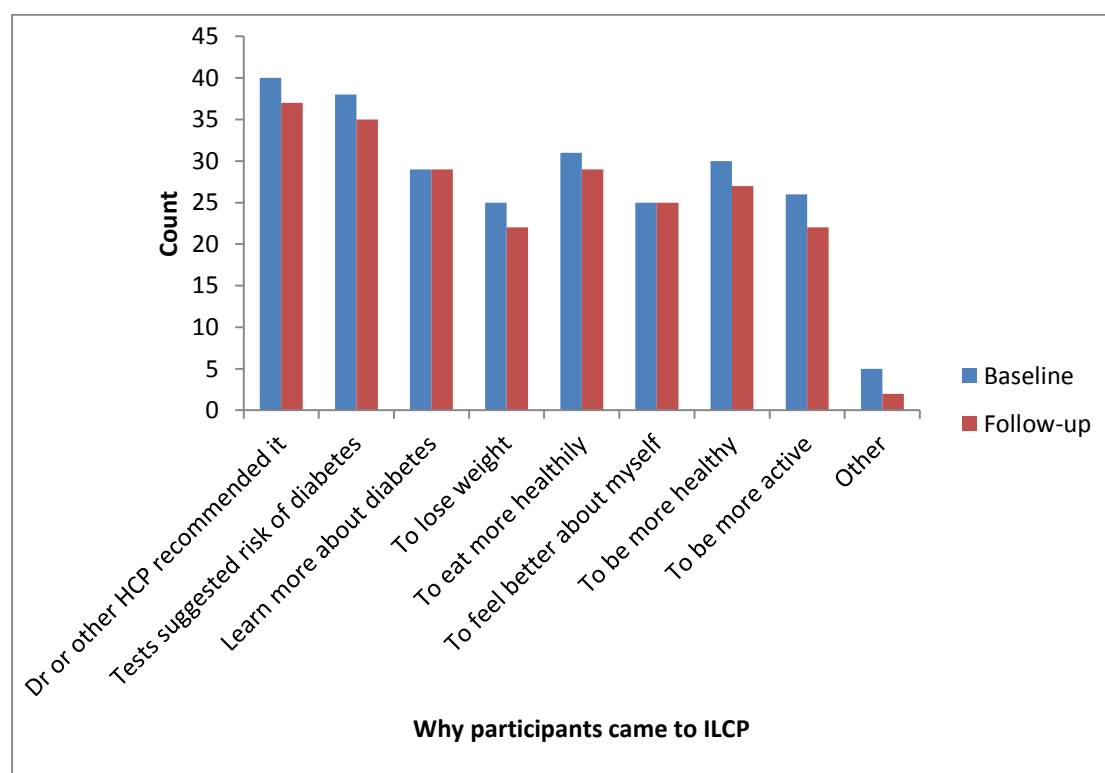
Ethnicity: Forty-seven participants (82.5%) reported their ethnicity: of these thirty-three (70.2%, more than two-thirds) were of Pakistani origin, four (8.5%) were of Indian origin, three were white British, three were of Bangladeshi origin, one was of Black Caribbean origin and three were of Black African origin.

Of 46 people for whom information on family history was available at follow-up, 24 did have a family history of diabetes and 22 did not.

Question 1: Why have you come to the session today?

Participants recorded multiple reasons for attending the ILCP sessions, both at baseline and follow-up. Most common reasons at baseline were: because the doctor or other healthcare professional (HCP) recommended it (n=40), and because the tests suggested the participant might be at risk of getting diabetes (n=38), to eat more healthily (n=31), to be more healthy (n=30) and to learn more about diabetes (n=29). Most common reasons given at follow-up were again: because the doctor or other healthcare professional recommended it (n=37), because the tests suggested the participant might be at risk of getting diabetes (n=35), to learn more about diabetes (n=29) and to eat more healthily (n=27). Reasons given in the “other” section included: to find the right venue for exercise; to learn about the cause of diabetes; not sure why; to learn about the cause of diabetes, to assist with pain management and gain a better awareness of health issues, and to prevent family from having diabetes.

Figure 2: Reasons given for attending the ILCP sessions



Question 2: How much do you already know about diabetes?

Within the group of 36 participants who answered this question at both baseline and follow-up, self-rated knowledge of diabetes had increased from a group mean of 3.44 out of 10 (SD 1.89) at baseline to a group mean of 6.14 (SD 2.02) at follow-up. The difference was statistically significant ($p=0.001$) using a related samples Wilcoxon Signed Rank Test.

Questions 3-8: Healthy behaviours

Smoking: At baseline, only three of the 46 participants for whom smoking status was recorded was a smoker. At follow-up, four of the 45 participants were recorded as being smokers.

Alcohol: Most of the participants reported that they did not drink any alcohol (34 out of 36 who answered this question at baseline and 34 out of 37 who answered at follow-up). Only three respondents reported drinking alcohol at either time point, and this was at low levels of up to 8 units per week.

Exercise: Some improvements were seen in the numbers of people taking moderate or vigorous exercise more frequently during the week. The improvement between baseline and follow-up was statistically significant for moderate exercise (Wilcoxon signed ranks test $p=0.007$) but not for vigorous exercise (Wilcoxon signed ranks test $p=0.856$).

Diet: Some increases were seen in the number of portions of fruit and vegetables people ate on a daily basis, and some decreases in the amount of high fat food eaten daily. The changes between baseline and follow-up were statistically significant for increased fruit and vegetable consumption (Wilcoxon signed ranks test $p=0.005$), but not for reduced high fat food consumption (Wilcoxon signed ranks test $p=0.072$).

Table 3: Exercise and dietary behaviours

| Behaviour | Baseline Median (IQR) <i>n</i> | Follow-up Median (IQR) <i>n</i> |
|---|---------------------------------------|--|
| Moderate exercise (number of sessions per week) | 2 (1, 3) 46 | 3 (2, 4.5) 45 |
| Vigorous exercise (number of sessions per week) | 0.5 (0, 2) 46 | 1 (0, 2) 45 |
| Portions of fruit and vegetables (daily) | 3 (2, 3) 46 | 3 (2, 4) 45 |
| Portions of high fat food (daily) | 1 (0, 1) 45 | 0 (0, 1) 45 |

Questions 9-13: Wellbeing

WHO-5 Wellbeing Index scores were calculated for participants at baseline and follow-up (maximum score = 100). Scores are presented in Table 4. A paired t-test comparing the change in scores across the group of 39 participants who responded at both baseline and follow-up found a mean reduction in the Wellbeing Index score of 3.69 points between baseline and follow-up. However this difference was small and not statistically significant ($p=0.382$).

Table 4: WHO-5 Wellbeing Index scores

| WHO-5 WBI score | n | Mean (SD) |
|------------------|----|---------------|
| Baseline | 45 | 55.20 (19.64) |
| Follow-up | 45 | 52.00 (25.66) |

Question 14: General health

In answer to the question “How would you rate your health over the last two weeks?” only one of the respondents (n=46 respondents at baseline, 45 respondents at follow-up) rated their health as excellent at baseline or follow-up. A higher percentage of respondents rated their health as good at follow-up (49%, n=22), compared to baseline (26%, n=12), with a higher percentage rating their health as fair at baseline (54%, n=25) compared to follow-up (33%, n=15). The change between baseline and follow-up was statistically significant (Wilcoxon signed ranks test $p=0.023$).

Table 5: Self-rated health in the last two weeks

| Self-rated health | Baseline n (%) | Follow-up n (%) |
|-------------------|----------------|-----------------|
| Poor | 8 (17%) | 7 (16%) |
| Fair | 25 (54%) | 15 (33%) |
| Good | 12 (26%) | 22 (49%) |
| Excellent | 1 (2%) | 1 (2%) |
| Total | 46 | 45 |

Question 15: Self-efficacy

In answer to the question “How confident do you feel that you can make positive changes to improve your health?” 46 participants responded at baseline, with a mean score across the group of 6.07 (SD 1.98) and 45 participants responded at follow-up, with a mean score of 6.87 (SD 1.96). The increase in self-efficacy was not statistically significant when compared using a paired t-test ($n = 39$, $p=0.059$).

3.2 Clinical data

Small but not statistically significant reductions were seen in participants' average BMI and waist circumference between baseline and follow-up. A statistically significant *increase* was seen in average systolic (but not diastolic) blood pressure ($p<0.001$), however no BP measures were very raised and may have been due to the ‘post’ measures being taken on a busy evaluation day when a lot was happening.

A statistically significant *decrease* was seen in average HbA1c between baseline and follow-up ($p<0.0001$). See table 6.

Table 6: Clinical data

| Measure | Baseline Mean (SD) <i>n</i> | Follow-up Mean (SD) <i>n</i> |
|---------------------------------|------------------------------------|-------------------------------------|
| Weight (kg) | 81.16 (20.56) 56 | 82.44 (18.93) 50 |
| BMI | 32.31 (5.86) 56 | 32.00 (6.11) 50 |
| Waist circumference (cm) | 105.78 (13.89) 41 | 102.63 (16.60) 47 |
| BP systolic (mmHg) | 127.45 (17.56) 56 | 135.71 (22.37) 49* |
| BP diastolic (mmHg) | 78.84 (11.82) 56 | 78.12 (12.16) 49 |
| HbA1c mmol | 45.45 (5.05) 56 | 42.25 (3.93) 49* |

*p<0.0001

To conclude the quantitative findings - statistically significant differences were found in terms of levels of knowledge of diabetes, moderate exercise, fruit and vegetable consumption, general health and blood sugar levels.

4 Qualitative Findings

In the initial evaluation, four beneficiary and one Champion focus group took place – see table 7. Nineteen beneficiaries participated (twelve female, seven male) and three BBD Champions. In the second phase evaluation, three beneficiary focus groups took place but no Champion focus groups –see table 8. Champions were present during all beneficiary focus groups as interpreters.

Findings are presented by theme. These combine feedback from both evaluation phases – any differences are identified and discussed.

Table 7: Phase 1 Focus Group Participants (January 2015)

| Group | Participants | Languages being spoken |
|-------|-------------------------------------|---|
| 1 | 3 people – 2 female, 1 male | English plus Punjabi or Urdu. One Champion interpreter present. |
| 2 | 7 people - all female | English, Punjabi and Urdu. Two Champion translators present. |
| 3 | 4 people - 3 male, 1 female | Bengali and Punjabi. Two Champion translators present. |
| 4 | 5 people - 3 male, 2 female | English |
| 5 | 3 BBD Champions – 1 male, 2 female. | English |

Table 8: Phase 2 Focus Group Participants (January 2016)

| Group | Participants | Languages being spoken |
|-------|-----------------------------|--------------------------|
| 6 | 4 people – 4 female, 1 male | Information not captured |
| 7 | 4 people – 2 female, 2 male | Information not captured |
| 8 | 5 people – 4 female, 1 male | Information not captured |

4.1 The Programme

General Perceptions

The ILCP was very positively perceived by beneficiaries – even more so in the second phase of the evaluation. Beneficiaries welcomed the opportunity to learn more about diabetes, appreciated the support offered and found the practical, group based approach

useful. The informality and atmosphere of the sessions was praised with participants saying how they enjoyed attending, were happy to come and felt comfortable there;

“He’s very happy. He felt that going to the group was very good and he’s very happy to have been invited to go along and he’s learnt lots of information and, and he feels lighter, he feels healthier.” (FG3⁶, I⁷)

“I think it’s fantastic.

It’s very good, you know what I mean? You learn a lot of things.

A lot of things you become aware of. Like portions and all that. It’s a very good programme” (FG7 - F1, M1 & M2)

“They said it is fine everything ... we feel very happy, very comfortable, that’s why we have come here. See the different people, talk to them” (FG8, I)

Other aspects of the ILCP that were appreciated included; receiving individualised (rather than generic) advice and flexibility in terms of being able to return if sessions were missed for personal reasons.

In the initial evaluation, the only negative feedback was from participants who ended up being the only person at the session, making them feel uncomfortable. This issue was not raised in the second phase.

The role of the programme

The programme served as a ‘catalyst’ for some – with beneficiaries talking about how they were aware that they should be living more healthily but lacked the ability, specific knowledge or motivation to translate this into action. The ILCP helped them with this;

“The program has helped me a very lot so I would say that yes...otherwise I’d still be pondering, thinking what to do and what can I do to change...once you umm by attending these sessions, its actually helped me to progress more quickly to what I want to be and do what I want to do” (FG4, P2⁸)

⁶ FG denotes Focus Group

⁷ I denotes Interpreter

⁸ P denotes participant

More generally, it was stated that, for some, the ILCP had led to a change in mentality whereby participants became more aware of their ability to make changes to their life and more positive in their approach.

“It has changed my mentality. It has, I mean I would definitely agree with what that lady said there. It’s made me more positive with my approach. I wanted to look after myself. I don’t think I really had that ... and now it’s given me that opportunity to see things in a bit of a different light” (FG8, M1)

Referral – a ‘wake-up call’

A critical point in the patient journey is when they are tested at their GP practice and receive their risk score. There was a variation in how aware beneficiaries had been of their risk levels previously - some had an ‘inkling’ that they may be at risk, whilst others had no idea, sometimes despite family members having the condition;

“They called me in, I had a blood test and that’s when they diagnosed I, it was on the borderline. Interviewer: And were you aware of that before? P1: Not really, no, but I lack a certain, like the lady next to me is saying that, you know, she felt tired and she did feel sort of not so energetic. I’m normally quite fit and healthy and at that time, I was feeling quite low, I’d get tired. So, I wasn’t aware of it, but I did have some symptoms.” (FG2, P1)

“I think I just thought I got to go and see what it’s about. I was surprised seeing the results cause I didn’t think I would have diabetes cause you just think it’s from eating loads and loads of sugar and I think well I don’t have a sweet tooth, its savouries me so I thought...well they’ll obviously get that wrong won’t they...yeah you see it’s what you don’t know about diabetes; you just think it’s from eating cakes and biscuits and you think well I don’t have that much, mine’s savouries, but no I was wrong” (FG1, P1)

Receiving this wake-up call led to beneficiaries feeling worried or scared. Some were surprised as they were not overweight and, had always previously associated having diabetes with this. Importantly being able to attend the ILCP meant they were able to channel their concerns in a positive way and do something pro-active to become healthier:

“All of them, no one, no one in the family’s had it before, apart from them, so they were quite scared, especially her ‘cause she’s seen it go through quite a few family members.” (FG3, I)

“X and Y were saying they were quite shocked to find out that they had high risk. Z’s saying when, she was shocked as well, but she was determined the advice they gave her that she wants to, you know, doing, start doing the right things.” (FG2, I)

“They were both scared initially but they felt comfortable knowing that there was something that will help them with the group” (FG8, I)

In the initial evaluation, beneficiaries speculated as to why others did not decide to participate in the ILCP. Most were unsure why someone would not attend, whilst some felt it was because they did not want to acknowledge that they were overweight or that some members of the community lacked motivation. It was felt by some that GP practices needed to more actively encourage people to attend the ILCP – to “refer” them rather than suggest they should go. They felt that those identified at a high risk but not attending were not taking it seriously enough;

“You know they’re not taking this thing as serious ... We want to be on that same level where it’s a big thing if your doctor does refer you to this program and you take it as serious. And that letter comes through the door, you think my gosh I have to attend these” (FG5 –BBD Champions, P3)

“Well when they go to the doctors the doctor can spend a little more time and explain to them this is the reason you need to go, for your health. Not just saying you’ve got diabetes you know” (FG6, P1)

A few participants felt that the ILCP should be open to more people – those who wish to change their lifestyle and are aware / interested in diabetes but are not officially ‘high risk’. It was felt that this would allow others in the same community to also benefit. This was not raised in the second round of focus groups.

Content

The content of the programme was very positively assessed;

“One thing about it was the presentations of the programme they were very good, formal information, they were good.” (FG7, M2)

Three positive aspects of the advice and information given on the ILCP emerged. One was that it was realistic – with its emphasis on slightly adapting current behaviours, as opposed to dramatic shifts, for example, shifting from white to brown rice. Another was that it was culturally appropriate, for example, the dietary and exercise advice suited their lifestyles e.g. suggesting more walking or different ways of cooking traditional Asian food. Finally, the advice given was specific enough to act upon. Participants therefore felt able to make positive changes.

“She, she has heard about 5 a day but she didn’t know exactly how to incorporate it, how the portions, you know, ‘cause it goes on portion sizes. So that was really helpful, the healthy eating side of it.” (FG2, I)

“I have spondylitis of the spine and I also have osteoporosis so walking and especially this power-walking I can’t do. We decided with one of the tutors, why not do the steps, up and down the steps and so I did that, and I did find it helped really but I live in a 3 storey house so you go up and down the stairs a lot.” (FG4, P5)

“Both ladies are saying they talk about the walk or exercise and then especially they talk about the food and portion sizes, which one is best and how much you can eat. The lady was saying when they were in a group they were talking about more vegetable, especially South Asian they eat more chapattis. They talk about how much you can have. They said don’t stop anything, they just said eat smaller portion sizes.” (FG8, I)

In the initial evaluation, there was debate as to how much information should be given about diabetes as a condition; with some beneficiaries and Champions feeling more should be given. In phase 2 beneficiaries were very positive about the level of information they had been given.

P: I think more awareness of how you get diabetes and what is actually diabetes.

Interviewer: So sort of background information? P: That’s it because we got told well it’s your body don’t produce enough insulin but to me I don’t even know what insulin is [laughs] (FG1)

“Certainly we need much more...in terms of looking at the content of ... the session in whole, we can be slightly more technical in terms of actually what we say instead of being completely sort of barred....” (FG5 - Champions)

“This lady said that when she came to our sessions she found out what it is and how it you know, how diabetes... she realised then in the groups how it starts and how it develops in the body and what it’s about” (FG6, I)

“We’ve been made more aware of it. What’s the cause, how can you prevent it, what lifestyle changes we can make. And it helped coming to the group” (FG7, I)

In both phases of the evaluation, some participants suggested testing blood sugar levels and / or weight. It was felt this would allow them to see progress being made and thus motivate them more;

“What they wanted at the programme was for somebody to check their sugar, that’s the only things that wasn’t happening. They’re saying the only time they had it checked was when they went to the Doctors first and then obviously they were told ... after the programme. So they would have preferred if at the programme somebody was there checking their sugar levels and letting them know how it is” (FG3, I)

“If they weighed everyone before the programme and then like we went every month / two months if they weighed a person again that would encourage that person to lose more weight, but they didn’t do that. It sort of motivates a person, we got to go there, we got to get weighed. ... Cos you don’t know if you have lost, improved or not. So like in the next sessions if you do that ... that would encourage that person.” (FG6, P1)

Having more diverse, interactive resources was requested by some beneficiaries and Champions in phase 1 but not in phase 2;

“x was saying that she, she likes it, but it could be a bit more, if they bring in more resources, make it more varied, it’ll be more, you know, appealing.” (FG2, I2)

In the initial evaluation it was felt that more interactive resources would cater for different learning styles and keep people’s attention. One or two beneficiaries commented that a cooking session would be beneficial as learning about something in theory is different to seeing how it is done in practice.

Group working

A major success factor of the ILCP is the group structure – this was consistent in both phases of the evaluation. Being part of a group meant people could share their experiences, learn from and motivate each other and they generally felt more comfortable being together;

“She’s saying yeah, again, sharing the experiences, knowing about each other’s, you know, what they’re doing and what, you know, background they have, in terms of how they want to deal with their disease, disease or whatever, you know, reasons they’ve come for, so it was nice to be in a group.” (FG2, I)

“cos there was another lady there, the way she cooked and did things and then we talked to her about the way we cooked and did things, so ... we shared recipes with each other and what oils people use, what they cook their meat in and things like that” (FG6, P1)

“I just wanted to say it almost feels like a support group.” (FG8, M1)

“Yes and we pick up difference from different backgrounds don’t you. I mean our culture is different from (M2). There’s something I like from M2’s culture and M1 likes something from our culture. You learn as you go don’t you? (P1)

you know when you live in the same country it doesn’t matter what culture you do you know what I mean (M2)

No but it’s nice to hear about his background, the stuff he was telling us about, I mean they’re use a lot of coconut oil where as we use ghee or butter. It’s something you just learnt don’t you (P1) (All from FG7)

Examples were given of other group members offering advice about exercise and encouraging others to carry on. There was a general feeling of a warm, supportive atmosphere and positive social outcomes also emerged. Champions raised two areas of potential concern, although they were unsure whether these had had any actual impact. One potential issue raised was where neighbours are allocated to the same group. It was felt that this situation may result in them not fully opening up as they may not want to discuss their private business in front of someone who knew them. Initial concerns about having men and women in the same group had been allayed with Champions commenting that mixed gender groups appeared to work well with all concerned contributing freely.

Language

Another major success factor of the ILCP (identified in both phases of the evaluation) was the diversity of languages utilised. BBD Champions conducted the groups in both English and other South Asian languages e.g. Punjabi, Urdu and Bangla. This was repeatedly said to be “*very, very important*” – both by English and non-English speakers. It was felt that, whilst some people speaking other languages may attend if it was held in English, their level of understanding and degree of interaction would be far lower;

I1 “P5 said that if she didn’t have anybody interpreting for her, she wouldn’t understand a word, so it was very important that there was somebody that could interpret. I2 Yeah, definitely the whole view is that they can understand bits of English but to get the proper use of the information, it was really good to have somebody who could speak the community language” (FG2)

“If it had been in English it would have been very hard, so it was useful that there was a champion there to translate (FG6, P2)

This finding is emphasised by a couple of cases (in the initial evaluation) where beneficiaries were referred to groups that were not conducted in their language – they had been far less satisfied with the ILCP and one had not returned. Allocating beneficiaries to the correct groups is therefore clearly critical.

An issue that emerged in the initial evaluation regarding language is that conducting the groups in two languages was challenging, “*very hard work*” for the Champions and often resulted in the sessions over-running.

Structure

One difference between the findings from the two phases of the evaluation was opinions on the length of the ILCP. In the initial evaluation it was felt that momentum was lost once the sessions became less frequent, with beneficiaries getting out of the habit of coming and losing touch with each other. It was suggested that using telephone or email during the less intense period and a celebration at the end of the course, may help sustain momentum. In the second phase however participants were positive about the course running over a year as it gave them time to set goals and make changes plus it refreshed their memories.

“Everyone knows that eating certain foods and doing certain things is bad for you, it’s when you actually get to the level of accepting that and changing that for your own life and having it over the year it was basically giving me that time. So every time we

went in we set obviously goals... and I actually wanted to make changes and that's what we did, every single time. So by time we got to the end of it I had quite an active lifestyle" (FG8, M1)

"I've been to other groups as such but they weren't as ... they weren't long lasting enough for me to keep going more to it." (FG7, P1)

Logistics – timing, location

Beneficiaries were satisfied with when the sessions were held and where. Having a combination of day-time and after work options was felt to be important to cater for different people's needs. The only issue (mentioned in first round of focus groups) regarding timing that emerged was when the ILCP sessions clashed with Ramadan preparations. Location wise having somewhere close and familiar was important.

Recommendations

Beneficiaries and BBD Champions suggested a number of potential improvements to the ILCP, listed below:

In the initial evaluation only, the following suggestions were made; more varied and interactive resources, more detailed information about diabetes, a celebration for those who participated in the whole programme, practical cooking skills, childcare for parents with young children, flexibility regarding dates, opening up to more people.

Two recommendations remained consistent across both phases of the evaluation. One was that clinical tests were conducted at the sessions (e.g. weight / blood sugar) in order to maintain motivation (mentioned earlier). The other was that a way of continuing the support and the connections was established for after the ILCP ended;

"It might be worth calling back every so often like every six months or whatever depending on...see how people are getting on. Cos I mean a lot of it has to do with a person's own individual situation. It's not that nobody knows, everyone knows. It's just personal situation. Gets them sort of out of balance and they need to check something like that. I think every so often you need to check in just to put you back on track and I can go forward with it" (FG8, M1)

Other recommendations raised in the second evaluation regarding the provision of certain types of exercise classes – namely for those with poor mobility (seated classes) and for women only sessions where their club card could be used;

“You know like I can’t go to gym or they stop walking when they’ve got knee problems, more groups where they can do exercises sitting down, encourage more to do. Cos a lot of people even like me I can’t walk, or she’s stopped walking because of the knee problems. Maybe we need more moves where... if you go to the gym they won’t show you exercises sitting down they just tell you how to use the machines but you need somewhere where you can do exercise inside the house, sitting on a chair. (FG6, P1)

She can’t walk, she can’t do exercise. Basically they want where the group can be run where they can sit on the chair (FG6, I)

You know like those resistance bands and stuff? Gyms won’t show you that (FG6, P1)

“I am satisfied overall. I will say one thing about the club card, they’ve not really given us much facility to go to women only group, and local authority groups they’ve not much... ones that are in my ... there’s one they don’t do women’s only at all in anything, that’s the only thing I’ve got an issue with overall. Because they were getting a club voucher and there’s no point, she has the same issue as me. There are 3 ladies that I know who have got the same issue” (FG7, P1)

To summarise, the ILCP programme was very positively perceived – especially so in the second evaluation - where fewer issues and recommendations for changes were made.

4.2 Perceived Outcomes

In this section, examples of change in knowledge and behaviour are given to complement the quantitative data presented in section 3.

Changes in knowledge

Participants had clearly increased their levels of knowledge regarding the condition and how it could be prevented. Prior to the ILCP many participants only had a very vague understanding of diabetes, despite some having family members with the condition. There were misconceptions that diabetes was not preventable or it only occurred in people who were overweight or ate lots of sugar;

“All over town we heard about diabetes, and what interested me when I was told by my nurse that diabetes is something that you could get rid of, it could completely get wiped out and if I could get... you know avoid getting diabetes altogether, I must attend this. ... Umm I didn't know how you got it and I didn't know you could get rid of it” (FG4, P1)

“I heard about it, but I thought it was for people who were overweight” (FG7, M2)

“I have my family, my mother has diabetes, my brother has diabetes but I didn't know much about how diabetes starts” (FG6, P3)

Levels of consciousness and awareness of the condition had been increased; *“It's almost as if your awareness has woken up.”*

“I was saying that I didn't know anything about diabetes. There is a couple of family members that have diabetes but obviously I thought it was nothing to do with me, I didn't really go into asking people even though they are close family members, I didn't know the details. But I did learn a lot of things and how to keep things in control, basically they sort of focus on weight and stuff and watch what you eat so it was really good actually.” (FG6, P4)

Participants therefore had learnt not only about the condition itself, but also what caused it and how they could avoid getting it. There were signs that this knowledge was being passed onto other family members;

“You learn a lot of things ... then you go home and tell your kids as well, you tell your wife you know. You tell your family as you, you know look after yourself” (FG7, M1)

“This lady said that when she came to our sessions she found out what it is and how it you know, how diabetes... she realised then in the groups how it starts and how it develops in the body and what it’s about, and how the cures are to it” (FG6, I)

Changes in dietary behaviour

In both phases of the evaluation participants discussed how they had changed their dietary behaviour due to attending the ILCP. They had gained information about what to eat and how much. Changes that emerged included;

- eating more fruit and vegetables
- trying new foods (e.g. fruit and milk)
- swapping some of their traditional meals for healthier alternatives (e.g. having salad for lunch)
- eating less sweet things / sugar
- reducing portion sizes
- changing cooking methods e.g. grilling meat rather than frying it
- swapping to healthier alternatives e.g. from white to wholemeal
- eating breakfast
- learning to read labels
- drinking less alcohol

Some examples are given below;

“So really it did introduce me to or its made me change my habits a little bit that I do need to eat more, at least one piece of fruit a day, which I never did and also the vegetables I have two or three vegetables every day. ... It taught me that I really ought to be eating some cereal or some toast at breakfast time early morning.” (FG4)

“She also say for example she altered the way she cooks, she tried you know to minimise the oil content in her curries.” (FG1, I)

“Diet was the value that Mr x said as well, changing the food, looking at portion sizes and just being given information about what to do or not to do. ... He’s adapted it all ... into a routine and he’s found that actually his body is lighter and he’s found that if you don’t eat too much, it’ll be good for you ... he’s not like heavy and bloated.” (FG1, I)

“Because we are so used to curries and chapattis we can’t completely come off them to be honest with you. Once or twice a week I have made changes like I am using salmon or fish with salad and stuff like that. ... And then once a week I have grilled chicken and stuff like that, which is like regular now as I didn’t use to. And I’ve cut down on rice mixing with meat, cos I used to cook a lot of rich with the meat in it. I’ve learnt that you should cook it in vegetable and then it’s less fat.” (FG6, P4)

“He’s cut down on sweet things.

She said she never tried fruit but now she does.

She tried milk.

She didn’t used to have milk and she found out in the classes that she came to if you have milk, it’s good for you, it got calcium for the bones. She didn’t know that.”

(Interpreter in FG6 referring to M1, P1, P2)

“I was guided to eat less fat versions of what I wanted. So like with my sandwiches have the low fat cheese, brown bread. With my rice have the brown rice, kind of stuff, masalas .. this is the kind of stuff we went through” (FG8, M1)

A key message participants had taken away from the ILCP was that most food could be eaten – things were not banned - but they needed to do so in moderation. Some participants talked about how they had not managed to give some foods up entirely (e.g. sugar or chocolate) but had cut down.

An important theme, stated more overtly in the second phase of evaluation, was how the dietary advice needed to be culturally appropriate and fit with their South Asian diet. There was a feeling that most existing advice is not easy to adapt to their diet;

“Most of the diet stuff is always based on English food but none of it was based on the Asian diet, like the curries. Wherever you go they are always based on the English food but we need more of what we cook and eat, how we can do that. ... How many calories things is, you get a lot of that on English foods but not on our curries, chapattis and other things” (FG6, P1)

A BBD Champion, speaking after a focus group, expanded on the importance of tailoring dietary information to suit this particular community and their preferred food, for example reducing the quantity of chapattis eaten or reducing the amount of fat used to cook curries;

“This is all an English diet, we’re not used to this and we can’t change. So we talk about the portion sizes, if you have having chapattis rather than having big chapattis cut in to the small... You must have seen the curries and it’s all type of oil. Because one thing is a fat and it’s got taste. So people are used to is, so we tell people use less oil .. like 3 tablespoon you are allowed for one person” (Champion)

Another theme to emerge more strongly during the second phase was how Asian women tended to cook for the whole family thus making it more difficult to change their own diet. One tactic they used therefore was to change just one of their meals e.g. breakfast, still cooking for and eating with the family for other meals. Others talked about how changing their own diet / adapting their cooking style, had been okay because the whole family wanted to be healthier. This aspect emphasises an additional barrier for Asian women to change their diet, but also an opportunity, as positive changes to their diet impact on other family members too;

“Because we are cooking in a family, we are not cooking individually” (FG6, I)

Changes in physical activity

Participants talked about increasing their levels of physical activity – some had done very little before but were trying to incorporate walking or other activities into their daily life whilst others were trying to increase the intensity a little;

“Mr X said he’s actually started walking as a result of the group because they said walking was a really good exercise to do. He didn’t use to do it before and he really, really enjoys it now. It gets him out of the house and, he’s said sometimes it’s difficult to be at home cause of stress and things, so it is really useful and he really likes that.” (FG3, I)

“Like a normal walk, you’d like stroll along, don’t you? But it’s not a walk isn’t a stroll, it’s like a proper walk where you can strain yourself a little bit, ..., you sort of push yourself and it’s an exercise done for you.” (FG2, P1)

A key message regarding physical activity was the importance of incorporating it into your daily life – it didn’t need to be an extra activity or an expensive one. People talked about starting to walk to the mosque or exercising in their house;

“Most of the people believe that physical activity or exercises relate to the fact that you know they have to join a gym you know, but we say no, no, no that’s completely a myth, you don’t have to join a gym. And then they’re slightly relieved because there is always kind of tension like you know to be physically fit you have to take part in gym sessions” (FG5 - Champions, P2)

“Some people don’t want to go outside and exercise but there is some exercise that you can do at home and there is a sheet of paper here that we were given which I found quite interesting as well, cos’ there’s sometimes I don’t like going to the gym and you could, certain exercises you can do, 14 minutes of jogging which we could all do, just in the comfort of your own house, you don’t even need to go out to gym.” (FG7, P1)

“She said when she came to the course they said start to walk, start from ten minutes and then start to increase to twenty minutes, thirty minutes.

That was the most useful thing she thought, you know”

(P1 & P2 via interpreter, FG6)

Many barriers to being physically active exist for participants. The most commonly cited were health or mobility issues e.g. arthritis, chronic pain, fear of falling. Whilst some were able to explore ways they could be active, for others it was more challenging. Other barriers include a lack of time due to family commitments, cost and not having friends to be active with.

Improved Wellbeing

Various aspects of wellbeing improved as a consequence of attending the ILCP. This included feeling less stressed / anxious, feeling more in control and having ‘purpose’. This emerged in both phases of the evaluation;

“He didn’t use the word mentally, but it’s almost as if he was saying he felt mentally lighter of mind, knowing that he’s at risk of diabetes, but he’s got things that he can do to prevent it” (FG3, I)

“She’s finding that she is very relaxed and very peaceful now. And when she go out and talk to people, like today she came here. And previously she has been to the group and see different people. She is more relaxed now, more peaceful (FG8, I)

“I found it very encouraging and empowering to ... it helped me maintain the weight loss and keep it ... it gave me a lot of confidence and self-esteem. I never used to go out of the house and now I’m out of the house .. I didn’t have anything to do cos I thought I’m overweight, you don’t want to go places, you stay indoors but now I just don’t care” (FG7, P1)

“A sense of purpose. Before you get up and wander about, but since then it gives you a sense of purpose... I think they should extend these programmes.” (FG7, M2)

Another participant discussed how the programme had prompted them to examine their whole lifestyle as they felt stress contributed to diabetes;

“I started looking at other issues, I’ve been in financial difficulties over the last few years, under a lot of stress as well, so I’ve looked at that... I put myself in a better position, I’m getting there.” (FG4, P3)

Improved social connections

Positive social outcomes also emerged with participants discussing how attending the programme has encouraged them or others to get out of the house – thus becoming less isolated and making new friends. For a few participants their participation in the group had led to other positive changes in their life - one participant who had rarely gone out before, now had far more social confidence, whilst another has become a BBD Champion herself;

“X said she, she found it really nice to socialise with other people, make friends and she, it makes you feel fresh, just getting out. Y again said it’s good to get out and to be in a group and you know, again, it’s just getting rid of that isolation you sometimes have.” (FG2, I)

“She said before she never got out. Since she has joined the group now she feel like to go out in different group. Actually she was my participant and she always stayed home. She attended only five, then I sent her to women’s only well-being group. She attended regular there. She goes to English classes too so now she feels like she likes to go out.” (FG8, I)

Social connections between different community groups had, in some cases, become established. Two participants – one a Muslim woman, another a West Indian male – had

become friends by participating in the ILCP and they talked about learning from each other's customs and cultures.

4.3 Champion specific findings (phase 1 only)

Only a small number of BBD Champions participated in the focus group during the initial evaluation⁹, so these findings are very tentative only – feedback from more participants would be advantageous. Only those items not discussed in section 4.1 and 4.2 are included here.

Motivation for participating as a BBD Champion included; interest / knowledge in health generally and diabetes specifically, friends / family members having diabetes, and having already trained as a Champion.

Confidence levels varied substantially between participants. Whilst one participant was very confident, others were less so. Concerns that they lacked credibility impacted on confidence levels, because they were not always sure they could answer technical questions about diabetes or diet. Assistance from clinicians e.g. a dietician was suggested as one possible way forward.

People not turning up to the ILCP clearly affected morale amongst the Champions, who tried hard to confirm attendance beforehand. More enthusiastic support from GP practice staff was felt to be needed.

Champions requested an opportunity to practice delivery before their first official session. They also felt that sharing practice / ideas would be beneficial. Training was discussed but there was some confusion as to the length of the training and the content.

Other recommendations from Champions included:

- A way of staying in touch with beneficiaries after the weekly sessions ended
- More input from professionals
- More interactive resources
- Increased level of information / knowledge about diabetes

⁹ The day of the focus group saw heavy snow so only a small number of Champions were able to attend

5 Conclusion and recommendations

Outcome evaluation

For a relatively new programme the outcomes are encouraging, with data from the second phase of the evaluation consolidating earlier findings. The self-rated levels of knowledge about diabetes had risen by a statistically significant amount during the duration of the programme. Plus the scores for physical activity (moderate exercise), diet (fruit and vegetable consumption) and self-rated health had all shown statistically significant improvements, indicating that people were making changes in their health related behaviour as a result of their participation in the programme, and BMI and waist circumference showed small but not statistically significant reductions. Blood sugar levels overall were down by a statistically significant amount, indicating that the programme was beginning to have a positive effect on diabetes prevention.

Process evaluation

The ILCP was very well received by beneficiaries. The content of the programme and its approach were seen as appropriate and useful. Improvements in knowledge of diabetes and how to prevent it were evident as were many dietary and exercise related behaviour changes. For some participants there had been substantial changes in their belief that they could control their own health. Improvements in wellbeing and social connections were also expressed and there were signs that some of these benefits had spread to other family members.

Key positive aspects of the programme include:

- The referral process – the ‘wake up call’ delivered by GP practices in combination with the ILCP meant people could translate their worries and concerns into behaviour change.
- The group structure. Being in a group made beneficiaries feel comfortable, able to share experiences and learn from each other.
- The diversity of languages spoken aided comprehension and interaction.
- The approach of encouraging small changes and incorporating them into their current lifestyle was well-received and understood by beneficiaries.
- The cultural appropriateness of the information given

Recommendations for improvements

A number of improvements were suggested following the first evaluation. It would appear, from the positive process evaluation in the second phase, that these have been addressed. These recommendations included: ensuring optimum group dynamics, adapting structure / content for different languages, providing more varied, interactive resources, sharing ideas / best practice between champions, providing more information about diabetes, maintaining momentum across the year long programme and raising awareness of the programme locally.

Recommendations following the second evaluation are:

Programme improvements

- To give consideration to weighing participants or measuring their blood sugar levels at key points during the ILCP. This would, potentially, provide additional motivation and signs of progress.
- Consider the use of pedometers or other ways of measuring activity for those who wish to utilise them.
- Measure / assess retention levels to ensure people are participating in the whole course.

Local improvements

- Advocate for more exercise classes, held locally, suitable for those with limited mobility and those who wish to exercise in women only sessions

General considerations

- Consider how to utilise family networks to spread awareness of diabetes and how it can be prevented

Ethnicity

The majority of evaluation participants were from the South Asian community living in Bradford City. As noted earlier, part of the appeal of the ILCP was how culturally appropriate it was. This leads to two recommendations.

- To continue developing expertise on how to tailor general dietary and activity advice for the South Asian community – and consider spreading this knowledge beyond Bradford
- As the ILCP spreads outside of Bradford City, consider comparing results with those detailed in this report, to see whether the content and approach are equally successful or need to be adapted in any way.

Appendix 1: Evaluation Plan (revised)

Bradford Beating Diabetes: ILCP Evaluation

Written by Jenny Woodward, 24th November. Revised 27th November following meeting with Nurjahan and Gill.

Timings

- | | |
|--------------------------------------|--------------------------------|
| • Submission to Leeds Beckett Ethics | 27 th November 2014 |
| • Data collection event | 15 th January 2015 |
| • Any feedback forms completed | End of January 2015 |
| • Analysis completed | End of February |
| • Final report | End of March |

Patient groups

First patients started in February 2014. Due for completion February 2015.

Our focus for the initial evaluation (due end March) is Cohort 1 & 2. Information on subsequent cohorts is for information only.

Cohort 1: Between February and April 2014 - **31** people started the ILCP. This cohort did not complete the pre wellbeing questionnaire but we believe they have completed the pre-clinical data. *(In January will be 9-11m in)*

Cohort 2: Between May and July - **30** or so people started the ILCP. They did complete the pre WB questionnaire and the clinical data. *(In January will be 6-8m in)*

Cohort 3: Between end August and 9th October – **27** new patients. Not all completed questionnaires (TBC). *(In January they will be 3-4.5m in)*

Out of the first 3 cohorts (n=88) 62 have completed the pre Wellbeing questionnaires and 61 have had their clinical data completed.

Since 9th October another 145 patients have either started, or are on the waiting list (although it is estimated that only approx. 50% of these will attend).

January 15th Event

Planning

- BBD team to invite Cohort 1 and 2 (totaling 61) to attend.
- Agreed that BBD champions would invite participants – good relationship with them. Those invited need to be informed that their participation is voluntary.
- Agreed that participants would receive a £10 High Street voucher if they attend (LBU to source / add to invoice)
- Invites to go out asap in December – but needs LBU ethical approval asap (Jenny to notify team as soon as we receive this)
- BBD team to confirm number of attendees (and the language they speak) by **7th January** - so LBU can provide enough staff to conduct the focus groups.
- BBD team and LBU to meet 7th January to discuss event arrangements– numbers of staff needed, structure of the day, languages etc.

The event

LBU to:

- Conduct **focus groups** with **all** attendees –8-10 per group (BBD team to provide translators if required)

BBD to:

- Complete the **post clinical data** for all attendees (conducted by Javed)
- Ask all attendees to complete the **post Wellbeing questionnaire**
- Ensure the post clinical data and the post Wellbeing questionnaires are 'matched' with the person's pre data. This must be anonymous when supplied to LBU.

What about Cohort 1 & 2 who do not attend on 15th January?

Team as a whole will assess how many patients are due to attend on 15th. If we are lacking data options are:

1. Ask patients, when they attend their next group meeting to complete:
 - a. Post wellbeing questionnaire – important particularly for Cohort 2
 - b. Post clinical data – important for all
 - c. Feedback form (a written version of the focus group questions – could be done in writing or over the telephone depending on numbers / language spoken). We may not need to do this if sufficient numbers attended on 15th January.

Analysis & Reporting

LBU will analyse data and report on:

- Wellbeing questionnaire – changes pre and post the intervention for Cohort 2 (maximum number of 30)
- Clinical data – changes pre and post the intervention for Cohort 1&2 (maximum number of 61)
- Focus groups and possibly feedback forms – thematic evaluation focusing on process of being involved in the ILCP and satisfaction with it. Maximum of 61.

AFTER JANUARY

- Possibly provide an analysis of Cohort 3 (n=27) plus later starters? Depending on time-scales / budget / data availability. This will not make the initial report.

Appendix 2:

Bradford Beating Diabetes Evaluation Information sheet for event attendees

Leeds Beckett University have been asked to evaluate Bradford Beating Diabetes Intensive Lifestyle Change Programme. We understand you have experience of this programme and we'd like to find out what you think about it and whether it has changed how you live.

We have therefore invited you to come to an event in Bradford on **15th January 2015**. Other people who have taken part in the Intensive Lifestyle Change Programme will also be there. The event will be a relaxed social occasion and include lunch.

What will you be asked to do?

At the event you'll be asked to take part in a focus group, complete a Wellbeing questionnaire and have some clinical measurements taken by a trained medical professional.

What will happen at the focus group?

The focus group will take about 45 minutes. Researchers from Leeds Beckett University will ask you some questions about the Intensive Lifestyle Change Programme in a group of between 5 and 10 people. You'll be asked about your experience of the programme – whether you found it helpful, what worked well and what could be improved.

With your agreement we would like to record the focus group so we can remember everything that is said. The recordings will be written up and then destroyed after the evaluation.

What does completing the questionnaire involve?

The questionnaire will ask you how much activity you do, your diet and how you feel generally about your health. You will have completed the same questionnaire when you started the programme – by completing it again we can see if anything has changed.

What measurements will be taken?

At the event we will ask to see if you are happy for some of your measurements to be taken. These are; your height, weight, waist circumference and blood pressure. A trained medical practitioner from the Bradford Beating Diabetes team will take these measurements in a private place.

What will happen with the information you provide?

The information will be used to see whether the programme is having an impact and people's views of it. We may use the information in reports, articles or at conferences. Your name or personal details will not be used at any point – all data collected is anonymous.

All the information provided will be stored securely and only the evaluation team at the university will have access to it. Paper copies will be stored in a locked filing cabinet at Leeds Beckett University.

What happens if I don't want to take part anymore?

Before the event, we will ask you to sign a form giving your informed consent to take part.

Taking part is completely voluntary – you can stop your involvement at any point and you don't have to give a reason why. If you change your mind about taking part afterwards, you can withdraw up until we start to analyse the findings. Your relationship with Bradford Beating Diabetes will not be affected in any way if you do or do not take part.

This phase of the research has been checked by an independent person to protect your well-being, rights and dignity. This research was reviewed favourably by a Local Research Ethics Co-ordinator from the Faculty Research Ethics Committee at Leeds Beckett University.

Contact us

We look forward to meeting you but in the meantime if you have any questions please call or email a member of the university evaluation team. The team members are:

Jenny Woodward
Research Fellow,
Centre for Health Promotion Research
Tel: 0113 8125856 Email: j.l.woodward@leedsbeckett.ac.uk

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Tel: 0113 812 4479 Email: J.White@leedsbeckett.ac.uk

If you would like to speak to someone outside the research team please contact:

James Woodall, Senior Lecturer in Public Health-Health Promotion.
Tel: 0113 812 4436, E-Mail: j.woodall@leedsbeckett.ac.uk

Appendix 3: Consent Form

Bradford Beating Diabetes Intensive Lifestyle Change Programme Evaluation

Please circle 'yes' if you agree with the following:

I have had information about this event Yes/No

I understand what the event involves Yes/No

I understand that I can withdraw from the evaluation
at any time up until the point of analysis and this will
not affect my involvement with the programme Yes/No

I am happy for the focus group to be recorded Yes/No

I am happy for the questionnaire information and the
measurements I provide to be used in the evaluation Yes/No

I agree the evaluation results can be published Yes/No

I understand that all personal identifying details will be
excluded and any quotations made anonymous Yes/No

I am happy to take part in the event Yes/No

Your name:

Signature:

Date:

Appendix 4: Wellbeing Questionnaire

Bradford Beating Diabetes Questionnaire 1

Name/ ID: _____

Date: _____

Champion/ Venue: _____

GP Practice: _____

Please can you help us to improve our services by completing this short questionnaire? All information collected will be held securely in accordance with the Data Protection Act 1998.

In order to evaluate the findings of this survey, we are working with evaluators at Leeds Beckett University who will analyse the data on our behalf. Information from this survey which identifies you will NOT be shared with the evaluators however if you do not want to share any of the information you provide, please tick this box ☐. The information you provide will then only be held within the GP practice and information added to your medical record.

1. Why have you come to the session today? Please tick all that apply

Doctor/ other healthcare professional recommended it..... ☐ 1

Because the tests I had suggested I might be at risk of getting diabetes..... ☐ 2

To learn more about diabetes..... ☐ 3

To lose weight..... ☐ 4

To eat more healthily..... ☐ 5

To feel better about myself..... ☐ 6

To be more healthy..... ☐ 7

To be more active..... ☐ 8

Other..... ☐ 9

If other, please

explain: _____

2. How much do you already know about diabetes? please place an X on the line below, where 1 means "I know nothing" and 10 means "I know everything"

1 2 3 4 5 6 7 8 9 10

3. About how many times in an average week do you do moderate exercise (enough to get a bit out of breath, but still be able to carry on a conversation) for at least half an hour?

Please choose one:

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐

4. About how many times a week do you do vigorous exercise (enough to break into a sweat) for 20 minutes or more? *Please choose one:*

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐

5. About how many portions of fruit and vegetables do you consume in an average day?

Please choose one (a portion can be one banana, two plums, a handful of berries, or two tablespoons of vegetables):

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐

6. About how many portions of high fat, snack or junk foods (e.g. crisps, samosas) do you consume in an average day? *Please choose one:*

0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐

7. Do you smoke? Yes ☐₁ No ☐₂

8. About how many units of alcohol do you drink in an average week? _____

A unit is half a pint of normal strength lager or beer, one small glass of wine (125ml) or one pub measure of spirits.

Questions 9 – 13: For each question, please circle which of the options (e.g. most of the time) is closest to how you have been feeling over the last two weeks:

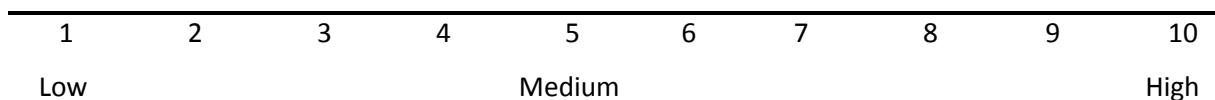
- | | | | | | | |
|---|--------------------|---------------------|-------------------------------------|----------------------------------|---------------------|---------------|
| 9. I have felt cheerful and in good spirits | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
|---|--------------------|---------------------|-------------------------------------|----------------------------------|---------------------|---------------|

| | | | | | | | |
|-----|---|-----------------|------------------|----------------------------|----------------------------|------------------|------------|
| 10. | I have felt calm and relaxed | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
| 11. | I have felt active and vigorous | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
| 12. | I woke up feeling fresh and rested | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
| 13. | My daily life has been filled with things that interest me | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |

14. How would you rate your health over the last two weeks? Please tick one:

Excellent ☐₄ Good ☐₃ Fair ☐₂ Poor ☐₁

15. How confident do you feel that you can make positive changes to improve your health? Please place an X on the line below:



The following questions are for research purposes only:

16. What is your home postcode? _____

17. Are you male or female? *please tick one:* Male ☐ ₁ Female ☐ ₂

18. What is your age? *Please tick one:*

16 to 24 ☐ ₁ 25 to 44 ☐ ₂ 45 to 64 ☐ ₃ 65 or over ☐ ₄

19. How would you describe your ethnic background? *Please tick only one:*

- White: British..... ☐ ₁
- White: Irish..... ☐ ₂
- Any other white background..... ☐ ₃
- Mixed: White and Black Caribbean..... ☐ ₄
- Mixed: White and Black African..... ☐ ₅
- Mixed: White and Asian..... ☐ ₆
- Any other mixed background..... ☐ ₇
- Asian: Indian..... ☐ ₈
- Asian: Pakistani..... ☐ ₉
- Asian: Bangladeshi..... ☐ ₁₀
- Any other Asian background..... ☐ ₁₁
- Black: Caribbean..... ☐ ₁₂
- Black: African..... ☐ ₁₃
- Any other black background..... ☐ ₁₄
- Chinese..... ☐ ₁₅
- Other..... ☐ ₁₆

Thank you

Appendix 5: Beneficiary focus group schedule

BBD Intensive Lifestyle Change Programme Evaluation

Beneficiary Focus Group Schedule

Introduce the researchers/facilitators, explain about the evaluation (they will have already completed a consent form / been given an information sheet).

- *Check okay being recorded and ask for any questions*
ILCP = 'the programme'

Awareness pre programme

1. Before you started the programme, how much did you know about diabetes?

- **Did you think you were at risk at all?**
- How healthy do you think your lifestyle was?

Referral / process

2. How did you come to be on the programme?

Probe:

Role of GP / other health services

Process of being referred

3. What did you expect to happen on the programme?

Probe:

How did you feel about coming on it / the programme?

What did you hope to gain from taking part?

Perceptions of the programme

4. What sort of things have you done on the programme?

Probe:

What sort of sessions / what topics they've covered

5. Overall what do you think about the programme?

6. What have you found most useful about the programme?

7. What have you found least useful?

8. Is there anything you particularly like/dislike?

Probe:

Group structure – did you like being in a group or would you prefer a one to one approach?

Session number – enough sessions or not? Meet regularly enough?

9. Is there anything you'd have liked to cover on the programme but was not offered?

Outcomes:

10. Have you benefitted from taking part in the programme at all? (un-prompted)

If so, how?

If not, why not?

11. Has your knowledge of diabetes changed at all? (*can miss – will be measured on the questionnaire*)

12. Have you made any changes to how you live since taking part?

Probe: Do you have any examples of things that you have changed?

Diet

Activity

Other

13. How well do you manage your own health now compared to before?

14. Have you accessed other health services as a result?

15. Is there anything you'd like to have changed in terms of your lifestyle but haven't managed to?

If yes, what is that? Why not?

Wrapping up

16. How could the programme be improved?

17. Would you like to pass on anything about your experiences to the project team or health services?

Thank you

Appendix 6: Health Champion focus group schedule

Focus Group Discussion with BBD Health Champions

THEIR ROLE

1. How did you come to be a BBD HC?
 - Why did you decide to get involved?

TRAINING

2. What training did you receive when you got involved in the project?
 - How well did it prepare you for the work you're doing?
 - Now you've been in the role for nearly a year - is there anything you'd change about the training you received?
3. What support do you receive in your role?
 - Is it adequate?
 - Do you think the support you get could be improved in anyway?
4. Do you have enough information / knowledge to do your role effectively?
 - How confident do you feel about being a HC?
 - Are there any situations when you don't feel confident?

ROLE

5. What do you do as a BBD Health Champion?
 - Probe: How many groups do they run? With who?
6. What qualities and skills do you think a HC needs?

The ILCP PROGRAMME

7. The ILCP Programme aims to help people at a high risk of diabetes, change their lifestyle by attending group sessions. How effective do you think this approach is?
8. What **sessions** work particularly well?
 - Are there any that don't work very well?
 - Is there any **content** or sessions that you think should be **added**?
9. How well does the **group** structure work?
 - What does it add?
 - Are there any disadvantages / anyone it is not suitable for?
10. Is the **length** of the programme about right?
 - Is a year about the right amount of time?
 - How about the number and frequency of sessions?
11. How well is it **organised**?
 - Probe: when the groups run / where
12. How important do you think **language** is?

13. What do the **HCs** add to the programme (as opposed to it being delivered by say a Health Professional)?

BENEFICIARIES

14. How is the referral system working?

- Are the right people getting **referred** to the programme?
- Are there any people that you don't think the programme is reaching?

15. What **barriers** to attending do you think exist?

OUTCOMES

16. Do you think the programme has helped those coming improve their health and wellbeing in any way?

- In what ways?
- Probe: Physical Health / Confidence / Wellbeing Social Support

17. Do you think the benefits have spread further than the people who come to the group?

18. Have you or your family gained in any way?

19. Does the programme link to other parts of the health service?

LEARNINGS / RECOMMENDATIONS

20. If the programme was to be continued or run somewhere else what advice would you give?

21. Could the programme be improved in anyway?

22. Do you have anything else to add?